

Work Order ID 139557-(

Monday, November 30, 2015 11:07:52 AM

139557

Page 1

Item ID: D2360

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Litter Tie Down Bracket

Start Date: 11/30/2015 Start Qty: 2.00

Cust Item ID:

Required Date: 11/30/2015 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan: MLJ Date: DEC 02 2015

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2341	Rev F								
D2360	Rev D								

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks: 12.65" Long

10 ~~0~~ 16/01/28

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.03

HAAS CNC vertical machine #1

Machine as per Folio D2341 and Dwg D2341
2-Deburr

10 ~~0~~ DAS 20 9-89 16-01-29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Work Order ID 139557

Monday, November 30, 2015 11:07:52 AM

139557

Page 3

Item ID: D2360 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Litter Tie Down Bracket
Start Date: 11/30/2015 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 11/30/2015 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	White Gloss(Ref:4.3.5.1) per OSI005 4.3-Alum	0.00							
150	<i>M 130729</i>					<i>10</i>	<i>0</i>	<i>1600-3</i>	<i>238</i>
Powdercoat	Memo	0.00							
Powder Coating	START TIME: <i>10:20:300</i>								
	OVEN TEMPERATURE: <i>320</i>								
	FINISH TIME: <i>10:50</i>								
160	QC3- Inspect Part Finish	0.00			DAS				
160					36	<i>10</i>			
QC	Memo	0.00			9-89				FEB 04 2016
Quality Control									
170	Small Fab	0.00			DAS				
170					36	<i>3</i>			
Small Fab	Memo	0.01			9-89				FEB 04 2016
Small Fab	Assemble as per dwg D2360								
	<i>open holes #D 2x</i>								
	<i>ø .246</i>								



DQA:

Date:

16/02/09



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

16/02/05

Work Order update only ☐

Work Order: <u>139557</u>	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS					
Part No. <u>02360</u>		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☒		
NCR No. <u>16-5595</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
	Large Fab ☐	Composite ☐	Supplier ☐				

Date :

16/2/4

Step #:

170

QTY Effective :

2

MRB (QSI042) Approval

 DAS
 12
 9-89

16/2/4

Description Work Order Deviation

Disposition

Drill ϕ 0.242 holes (2 PL)
 ϕ 0.246 to allow pip pin to fit

Acceptable deviation, Required
 for pip pin fit.

Completed By

 DAS
 16/02/03 36
 9-89
Lead hand / Supervisor
Approval Verification
 DAS
 30
 9-89
 FEB 04 2016
QC / QA Coordinator
Approval
 DAS
 30
 9-89
 FEB 04 2016

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☒	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☒	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :					
Misidentified ☐	Past Due ☐						

Work Order ID 139557

Monday, November 30, 2015 11:07:52 AM

139557

Page 4

Item ID: D2360

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Litter Tie Down Bracket

Stop ***NS2***Start Date: 11/30/2015 Start Qty: 2.00 ***2***

Cust Item ID:

Required Date: 11/30/2015 Req'd Qty: 2.00 ***2***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00							
180									DAS
QC	Memo	0.00				3			38
Quality Control									9-89 FEB 04 2016
190	Identify as per dwg & Stock Location <u>225</u>	0.00							
190									
Packaging	Memo	0.00				31			DAS
Packaging									26 9-89 FEB 04 2016
200	QC21- Final Inspection - Work Order Release	0.00							
200									
QC	Memo	0.00							
Quality Control									MCS FEB 04 2016

MCS FEB 04 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Monday, November 30, 2015 11:07:51 AM

Page 1

Work Order ID: 139557

139557

Parent Item: D2360

D2360

Parent Item Name: Litter Tie Down Bracket

Start Date: 11/30/2015

Required Date: 11/30/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP rev H 07.06.12 ecn 825 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN526C1032R18

Purchased

No

170

Each

178.0000

1

~~20~~ 10

AN526C1032R18

Screw

DAS
6
9-89

Location

Loc Qty

Loc Code

FP001

72

4523

72

ST327

106

108079

106

D2002-015

Manufactured

No

170

Each

2.0000

2

~~4~~ 20

D2002-015

Knob

DAS
30
9-89

Location

Loc Qty

Loc Code

GA

2

136185

2

D2345

Manufactured

No

170

Each

15.0000

1

~~1~~ 10

D2345

Lock Channel

DAS
30
9-89

Location

Loc Qty

Loc Code

GA

15

133107

2

135400

3

136913

10

D2366

Manufactured

No

170

Each

7.0000

2

~~1~~ 20

D2366

Lock Handle

DAS
6
9-89

Location

Loc Qty

Loc Code

ST006

7

136142

7

FEB 03 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

Monday, November 30, 2015 11:07:51 AM

Page 2

Work Order ID: 139557

139557

Parent Item: D2360

D2360

Parent Item Name: Litter Tie Down Bracket

Start Date: 11/30/2015

Required Date: 11/30/2015

Start Qty: 2.00

Required Qty: 2.00

D2367

Manufactured No

170

Each

10.0000

1

2 10

D2367

Handle Knob

Location

Loc Qty

Loc Code

ST006

10

133384

4

135368

6

D2372

Manufactured No

170

Each

34.0000

2

4 20

D2372

Quick Release

DAS
30
9-89

Location

Loc Qty

Loc Code

GA

34

137780

6

137985

6

138467

6

139358

16

D2373

Manufactured No

170

Each

8.0000

1

2 10

D2373

Spring

DAS
30
9-89

Location

Loc Qty

Loc Code

GA

8

133425

8

D2444

Manufactured No

170

Each

4.0000

1

2 10

D2444

Pip Pin Assembly

DAS
30
9-89

Location

Loc Qty

Loc Code

GA

4

136647

4

B 1396 14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Picklist Print

Monday, November 30, 2015 11:07:51 AM

Page 3

Work Order ID: 139557

139557

Parent Item: D2360

D2360

Parent Item Name: Litter Tie Down Bracket

Start Date: 11/30/2015

Required Date: 11/30/2015

Start Qty: 2.00

Required Qty: 2.00

D6201 Manufactured No 100 f 21.1380 1.054 2.218947

D6201

"T" Extrusion

Location

Loc Qty

Loc Code

MAT028

21.1380001

124165

0.0000001

133208

0.068

133910

1.07

137533

20

140069 → 11.100

MS20470AD3-4

Purchased No

170 Each 1,652.000 1

MS20470AD3-4

Rivet, Universal Head

Location

Loc Qty

Loc Code

GA

556

111477

556

ST310

1096

111477

1096

MS21042L3

Purchased No

170 Each 362.0000 3

MS21042L3

Nut

Location

Loc Qty

Loc Code

FP001

95

M130922

95

GA

84

M131317

84

ST304

183

M130922

183

ml
16/01/28

DAS
6
9-89

10
30

133790 45

DAS
6
9-89

FEB 03 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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		OTHER :																																																																					

Picklist Print

Monday, November 30, 2015 11:07:51 AM

Page 4

Work Order ID: 139557

139557

Parent Item: D2360

D2360

Parent Item Name: Litter Tie Down Bracket

Start Date: 11/30/2015

Required Date: 11/30/2015

Start Qty: 2.00

Required Qty: 2.00

MS27039-1-13

Purchased

No

170

Each

688.0000

1

2 10

MS27039-1-13

Screw

DAS
6
989

Location

Loc Qty

Loc Code

cck007a

295

124326

295

GA

90

124326

90

ST285

303

125654

303

10

MS27039-1-15

Purchased

No

170

Each

887.0000

2

4 20

MS27039-1-15

Screw

Location

Loc Qty

Loc Code

cck007a

800

m132640

600

m132701

200

GA

51

m127916

51

ST285

36

m127916

10

m130388

1

m132317

25

20

DAS
6
989

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

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Page 5

Work Order ID: 139557

139557

Parent Item: D2360

D2360

Parent Item Name: Litter Tie Down Bracket

Start Date: 11/30/2015

Required Date: 11/30/2015

Start Qty: 2.00

Required Qty: 2.00

NAS1149D0332J

Purchased

No

170

Each

2,007.000

8

16

DAS
30
9-89

FEB 04 2016

NAS1149D0332.J

Washer

Location

Loc Qty

Loc Code

CA

14

m129682

14

FP001

76

m129682

76

GA

357

m132677

357

ST264

1560

m133498

1560

80

NAS1149D0363J

Purchased

No

170

Each

170.0000

2

4

DAS
30
9-89

FEB 04 2016

NAS1149D0363.J

Washer

Location

Loc Qty

Loc Code

GA

141

m130799

141

ST269

29

m126319

7

m128429

2

m131618

1

m132317

10

m132677

9

20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Picklist Print

Monday, November 30, 2015 11:07:51 AM

Page 6

Work Order ID: 139557

139557

Parent Item: D2360

D2360

Parent Item Name: Litter Tie Down Bracket

Start Date: 11/30/2015

Required Date: 11/30/2015

Start Qty: 2.00

Required Qty: 2.00

NAS679A3W

Purchased

No

170

Each

262.0000

1

2

NAS679A3W

Nut

DAS

30

9-89

FEB 04 2016

Location

Loc Qty

Loc Code

GA

140

1463

5

M2409

135

Mezz

122

2409

122

10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐		☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator ☐		☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup ☐		☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier ☐		☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training ☐		☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing ☐		☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information ☐		☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing ☐		☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement ☐		☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement ☐		☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process ☐		OTHER : _____							
Misidentified ☐	☐	Past Due ☐									

DART AEROSPACE LTD		Work Order: 139557
Description: Litter Tie Down Bracket (Locking)		Part Number: D2341
Inspection Dwg: D2341	Rev: F	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

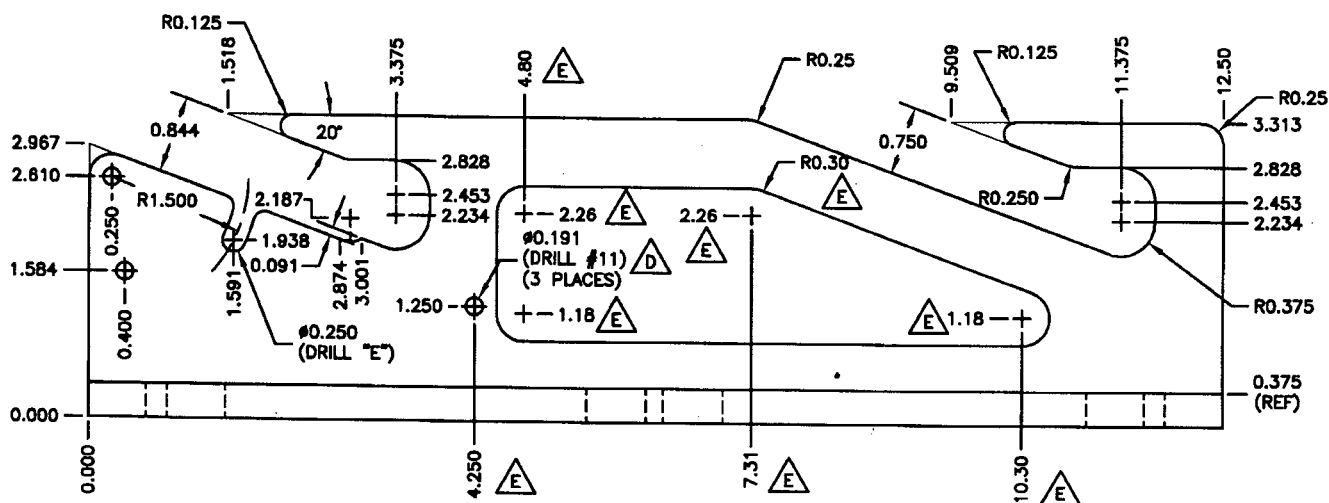
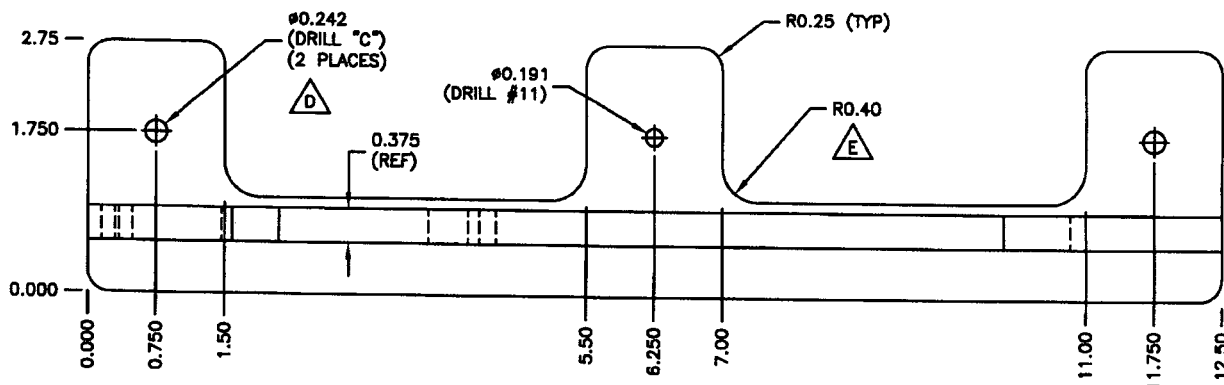
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.750	+/-0.010	1.753	✓		SLIO	Vern
2.75	+/-0.030	2.757	✓		"	
Ø0.242	+0.005/-0.001	0.242	✓		"	
Ø0.191	+0.005/-0.001	0.192	✓		"	
R0.25	+/-0.030	0.250	✓		Rad gauge	
R0.40	+/-0.030	0.400	✓		"	
12.50	+/-0.030	12.507	✓		Height gauge	
11.750	+/-0.010	11.755	✓			
11.00	+/-0.030	11.0025	✓			
7.00	+/-0.030	7.0075	✓			
6.250	+/-0.010	6.256	✓			
5.50	+/-0.030	5.504				
1.50	+/-0.030	1.510	✓			
0.750	+/-0.010	0.757	✓			
0.400	+/-0.010	0.399	✓		SLIO	Vern
1.584	+/-0.010	1.5815	✓			
2.610	+/-0.010	2.608	✓			
0.250	+/-0.010	0.248	✓			
0.844	+/-0.010	0.842	✓			
Ø0.250	+/-0.010	0.249	✓			
0.750	+/-0.010	0.752	✓			
3.313	+/-0.010	3.312	✓			
4.250	+/-0.010	4.248	✓			
1.250	+/-0.010	1.248	✓			

Measured by: DAS 20 9-89		Audited by: DAS 14 9-89		Prototype Approval: N/A	
Date: 16-01-29		Date: 16/02/01		Date: N/A	

Rev	Date	Change	Revised by	Approved
A	06.05.24	New Issue P/O D2360	KJ/JLM	
B	07.07.17	Dwg Rev. updated	KJ/JLM	
C	10.02.02	Dimensions updated	KJ	



DESIGN BW	DRAWN BY JC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED JB	APPROVED JH	DRAWING NO. D2341	REV. F SHEET 1 OF 1
DATE 07.06.07		TITLE LITTER TIE DOWN BRACKET (LOCKING)	SCALE 1:2
A	95.01.13	NEW ISSUE	
B	95.02.14	MODIFIED LOCK	
D	95.02.20	CHANGES TO DIAMETERS	
E	97.10.01	CHANGES FOR MACHINING	
F	07.06.07	REVISED NOTES; FINISH WAS ANODIZE	



D2341 LITTER TIE DOWN BRACKET (LOCKING)

- 1) MATERIAL: MAKE FROM D6201-0125 EXTRUSION (6061-T6/T651 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (REF. 4.3.5.1) PER QSI 005 4.3
- 3) BREAK ALL SHARP EDGES TO 0.005 TO 0.010
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N "D2341" USING FINE POINT PERMANENT INK MARKER



RELEASED

07-6-22

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SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 139557

MS 15-12-02



DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CE	APPROVED [Signature]	DRAWING NO. D2360	REV. 0 SHEET 1 OF 2
DATE 07.06.06		TITLE LITTER TIE DOWN ASSEMBLY (LOCKING) NTS	
A	95.02.10	NEW ISSUE	
B	95.02.20	RE-DESIGN	
C	97.08.27	ADD MS20470AD3-4 RIVET	
D	07.06.06	D2002-015 WAS D2376; SECTION B-B QTY(2) AN960JD10 WAS QTY(3) QTY(8) AN960JD10L WAS QTY(5)	

RELEASED

07-06-07

PARTS LIST:

QTY	PART NUMBER	DESCRIPTION
X	D2360	LITTER TIE DOWN ASSEMBLY (LOCKING)
1	D2341	LITTER TIE DOWN (LOCKING)
1	D2345	LOCK CHANNEL
2	D2366	LOCK HANDLE
1	D2367	KNOB (DELRIN)
2	D2372	QUICK RELEASE FASTENERS
1	D2373	SPRING
2	D2002-015	KNOB (DELRIN)
1	D2444	PIP PIN
1	AN526C1032R18	SCREW
2	AN960JD10	WASHER
8	AN960JD10L	WASHER
1	MS20470AD3-4	RIVET
3	MS21042L3	NUT (OR MS21042-3)
1	MS27039-1-13	SCREW
2	MS27039-1-15	SCREW
1	NAS679A3W	NUT

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